



UNITED STATES PATENT AND TRADEMARK OFFICE

20

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,096	09/08/2000	Pieter Jacob Snijder	PHN 17-637	3027

24737 7590 05/03/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

JAIN, RAJ K

ART UNIT PAPER NUMBER

2664

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/658,096	SNIJDER ET AL.	
	Examiner	Art Unit	
	Raj K Jain	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4.6</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Specification

2. With respect to the specification, examiner concurs with applicant that section headings are suggested but not required, and therefore accepts applicants declining to amend the disclosure at present time, and thus objection is withdrawn.
3. With respect to drawings, examiner accepts replacement drawings with verbiage added as appropriate to Figs 1 and 2, and therefore objection to subject drawings is withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2664

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisdikian (US Pat. 6,181,687 B1) hereinafter Bisdikian in view of Waggener, Sr. et al (US Pat. 4,829,540) hereinafter Waggener.

Regarding claim 1, Bisdikian discloses a multiple access communication system comprising

- at least one primary station (101) (see Fig 1) and a plurality of secondary stations (104n, multiple subscribers accessed via fiber nodes 102),

- the primary station (101) and the secondary stations (104) being interconnected via a network (see fig 1 comprising of a general CATV network, also see col 1 lines 47-67),

- the secondary stations (104) being arranged for transmitting return signals in a return signal frequency band to the primary station (bi-directional amplifiers 103 are used for return signals see col 2 lines 27-33),

- the secondary stations being further arranged for transmitting the return signals in only a part of the return signal frequency band containing relatively little noise, characterized in that the network comprises means for mapping the return signals onto the return signal frequency band (see col 2 lines 3-27, the return signal frequency bands 5MHz- 42MHz are referred to as upstream channels occupying frequency bands different than those allocated for downstream channels (above 450MHz) from the primary station 101 to the secondary stations 104).

Bisdikian further discloses cluster groups formed within subscriber (104, Fig1) neighborhoods that use a single fiber line, however, Biskian fails to disclose the mapping of sets of return signals from a plurality of secondary stations.

Waggener discloses mapping frequencies from relay units that connect remote sites and base stations (see Fig1). Frequencies are mapped (see col 4 line 65 – col 5 line 5, lines 35-45) from the base station to relay unit and than from the relay unit to remote units or users. Each frequency between the base station and remote units can be accommodated with frequency hopping and time division multiplexing and thus having multiple signals on a single frequency (see col 5 lines 12-17). Although, the invention is described using single frequency sets, the invention can readily be expanded to multiple groups each using different sets of frequencies (see col 5 lines 35-43). One skilled in the art of frequency allocation schemes readily understands that each frequency band can have multiple channels accommodating plurality of users within each channel or frequency segment. Further, having separating frequencies minimizes interference among users.

Therefore it would have been obvious to one of ordinary skill in the arts at the time the invention was made to include multiple frequency sets within Bisdikian so as allow for expansion of number of users as well as minimize interference among the users.

Regarding claim 2, Bisdikian discloses the means for mapping the return signals from the primary station back to the secondary stations (see 102 within fig 1).

Regarding claim 5, Bisdikian discloses the network comprising of a coaxial cable network (107 within Fig 1).

Regarding claim 6, Bisdikian discloses the network comprising of a hybrid fiber/coaxial cable network (see Fig 1, col 2 line 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bisdikian (US Pat. 6,181,687 B1) hereinafter Bisdikian in view of Waggener, Sr. et al (US Pat. 4,829,540) hereinafter Waggener, and further in view of Fuhrmann (US Pat. 5,745,837).

Bisdikian discloses a multi-access computer communication system where a number of stations communicate with each other over a common frequency spectrum, by sharing a sequence of transmission time intervals. To avoid collision a contention-resolution algorithm is employed (see abstract and col 6 lines 19-63).

Waggener discloses mapping frequencies from relay units that connect remote sites and base stations (see Fig1).

Bisdikian and Waggener fails to disclose the incorporation of a down converter within the subject invention.

Fuhrmann discloses the use or incorporation of a down converter within a CATV system (see col 38 lines 33-60).

A up/down converter translates the frequency of a given up or down stream to an appropriate alternate frequency so as to avoid interfering with the other up or down programming transmission channels thereby reducing interference.

Therefore it would have been obvious in order to further enhance the contention resolution algorithm to avoid collision of Bisdikian one would incorporate an up/down converter so as to change the up or downstream frequency and therefore reduce and/or avoid interference amongst nearby transmitting channels.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2664

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

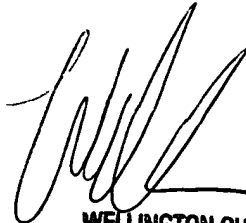
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj Jain whose telephone number is 571-272-3145.

The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

RJ
April 26, 2005



WELLINGTON CHIN
PERMISSORY PATENT EXAMINER